780 CMR 93.00

REPAIR, RENOVATION, ALTERATION, ADDITION, DEMOLITION AND CHANGE OF USE OF EXISTING ONE- AND TWO-FAMILY DWELLINGS

(Note: 780 CMR 93.00 is Unique to Massachusetts)

780 9301 SCOPE

9301.1 Scope. The provisions of 780 CMR 9301 govern the repair, renovation, alteration, additions, change in use and demolition of existing one and two family detached dwellings and accessory buildings and structures which were legally constructed under 780 CMR 51.00 through 99.00 or prior editions of the *Massachusetts State Building Code* or other legally adopted codes, laws, bylaws or regulations adopted by the jurisdiction and which were in effect at the time the existing building was constructed, renovated or otherwise altered.

9301.2 Intent. The intent of 780 CMR 9301 is to provide for standards of construction which serve to maintain or improve the performance of existing buildings and to permit existing buildings and components of existing buildings to remain in use without necessarily requiring compliance with the code for new construction unless expressly required otherwise.

9301.3 Compliance Alternatives. Where compliance with the provisions of 780 CMR 51.00 through 99.00 for new construction is required and where such compliance is impractical because of structural, construction issues or regulatory conflicts, compliance alternatives may be accepted by the building official.

9301.3.1 Documentation of Compliance Alternatives. In accordance with 780 CMR 9302.5, the building official shall ensure that the BBRS is provided with information regarding compliance alternatives accepted or rejected by the building official.

9301.4 Buildings which Qualify. The provisions of 780 CMR 93.00 shall apply to existing buildings which have been legally occupied and/or used for a period of at least five years. Any building for which there exists an outstanding notice of violation or other order of the building official shall not qualify to use 780 CMR 93.00 unless such proposed work includes the abatement of all outstanding violations and compliance with all outstanding orders of the building official. Buildings which do not qualify as existing buildings for the purposes of 780 CMR 93.00 shall

comply fully with the applicable provisions of 780 CMR 51.00 through 99.00 for new construction.

9301.5 Specialized Codes. Nothing in 780 CMR 9301.5 shall be deemed to regulate subject areas which are regulated by the Massachusetts Special-ized Codes promulgated by the various specialized Boards established and authorized by Massachusetts General Law. Such specialized codes include but are not limited to:

- 1. 105 CMR
- 2. 248 CMR
- 3. 310 CMR
- 4. 521 CMR
- 5. 522 CMR
- 6. 527 CMR
- 7. 528 CMR

780 CMR 9302 DEFINITIONS

ADDITION. The creation of new building area(s) connected to the existing building. This definition shall also include the addition of a deck or platform, balcony or similar structure.

ALTERATION. The reconfiguration of existing spaces, including relocation of existing walls and/or the creation of rooms or spaces within the physical confines of the existing building. Alteration may include elements of demolition.

COMPLIANCE ALTERNATIVE. An alternative life safety construction feature which meets or exceeds the requirements or intent of a specific provision of 780 CMR. The building official is authorized to approve or disapprove compliance alternatives. Compliance alternatives are only permitted for existing buildings.

DEMOLITION. The removal or dismantling of existing construction, in whole or in part, with or without the intent to replace the construction so affected.

EXISTING BUILDING. A one- or two-family dwelling which has been issued a valid certificate of use and occupancy or has been occupied legally for a period of five years. An existing building which is occupied for less than this period shall be

$780~\mathrm{CMR}\colon\thinspace$ STATE BOARD OF BUILDING REGULATIONS AND STANDARDS THE MASSACHUSETTS STATE BUILDING CODE

subject to provisions of 780 CMR 51.00 through 99.00 for new construction.

EXISTING NONCONFORMING. The building, room, space or any feature or element which does not conform with the current requirements of 780 CMR 51.00 through 99.00 for new construction.

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS
REPAIR, RENOVATION, ALTERATION, ADDITION, DEMOLITION AND
CHANGE OF USE OF EXISTING ONE- AND TWO-FAMILY DWELLINGS

LATENT CONDITIONS. Deleterious conditions which existed prior to alterations, additions or change in use but are not evident until after the start of construction, renovation or demolition.

REPAIR/RENOVATION. The reconstruction or renewal of any part of an existing building for the purpose of its maintenance without altering the physical layout of the space or spaces within the existing building.

REPAIR (Ordinary). Any maintenance which does not affect structure, egress, fire protection systems, fire ratings, energy conservation provisions, plumbing, sanitary, gas, electrical or other utilities.

SERVICEABLE. A building feature, component or system which, by virtue of its physical condition, is suitable to continue in service without having a deleterious effect on the normal or intended use of the building or on the safety of the occupants or on the public safety.

UNSERVICEABLE. A building feature, component or system which, by virtue of its physical condition is unsuitable to remain in service.

Terms not Defined. Terms not defined in 780 CMR 9302 shall be as defined in 780 CMR 52.00.

780 CMR 9303 GENERAL REQUIREMENTS

9303.1 Classification of Work. Work on an existing building shall be classified in one or more of the categories listed below and as and defined in 780 CMR 9303.

- 1. Repair or renovation
- 2. Alteration(s)
- 3. Addition(s)
- 4. Demolition (partial or total)

9303.1.1 Repair or Renovation Shall Comply with 780 CMR 9304 and 9306 When Applicable.

9303.1.2 Alterations Shall Comply with 780 CMR 9304 and 9305 and 9306 When Applicable.

9303.1.3 Additions shall Comply with 780 CMR 9304 and 9306.

9303.1.4 Energy Conservation Requirements Shall Comply with 780 CMR 9307.

9303.2 Building permit Requirements.

9303.2.1 Building Permit Requirements. A building permit shall be required for all categories of work in 780 CMR 93.00 except that a permit shall not be required for ordinary repairs as defined in 780 CMR 9302: REPAIR (Ordinary).

9303.2.2 Application. A building permit application shall be filed in accordance with 780 CMR 5110 and 780 CMR 93.00 and a building permit shall be obtained prior to the start of work for any category of work proposed under 780 CMR 93.00 except no permit shall be required for ordinary repairs.

9303.3 Certificate of Use and Occupancy. At the completion of work the permit applicant shall apply for a certificate of use and occupancy in accordance with 780 CMR 5120.

9303.4 Unlined Chimneys. Where new HVAC appliances are connected to an unlined chimney, the chimney lining requirements of 248 CMR or 527 CMR, as applicable, and those of the appliance manufacturer shall be satisfied. If the appliance is a solid fuel-burning appliance, the chimney shall be relined to satisfy requirements both of the code for new construction and those of the manufacturer, as applicable.

9303.5 Power Venters. The requirements of 248 CMR or 527 CMR shall apply as applicable. If the appliance is a solid fuel-burning appliance, any power venter utilized shall be listed for the application, as shall the solid fuel-burning appliance, sized for the appliance being exhausted, contain required pressure proving switching, and be installed relative to combustible construction in accordance with the power venter listing; likewise, venter requirements of the fuel-burning appliance manufacturer shall apply, as applicable and if power venting is not allowed by the solid fuel-burning appliance manufacturer, then power venting shall not be allowed.

9303.6 Flood-resistant Construction for Existing Buildings. When applicable, conformance to 780 CMR 5323 is required (also see 780 CMR 9306).

780 CMR 9304 REPAIRS AND RENOVATIONS

9304.1 Repairs and Renovations. Repairs or renovations to existing buildings which maintain or improve the performance of the building may be made with the same or like materials, unless

required otherwise by 780 CMR 51.00 through 99.00. Alterations or repairs which have the effect of replacing a building system as a whole, or the repair or replacement, or installation of interior finishes, or structural elements or systems shall comply with 780 CMR 51.00 through 99.00 for new construction to the fullest extent practicable.

9304.2 New Building Systems. Any new building system or portion thereof shall conform to 780 CMR for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with the code for new construction unless specifically required by 780 CMR 93.00.

9304.3 Existing Nonconforming Buildings, Spaces, Rooms, Building Systems or Building Components. Features of existing construction including but not limited to stairs, guardrails or heights which do not meet the requirements of 780 CMR 51.00 through 99.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. stated otherwise, nothing in 780 CMR 9304 shall require the upgrading or replacement of any existing nonconforming features or component of an existing building, provided the feature(s) or components or systems are in a serviceable condition unless the building official determines that an unsafe or dangerous condition would exist, in which case he shall order the remediation of such condition. Nor shall 780 CMR 9304 be deemed to require the replacement or upgrading of serviceable components which are not included in the scope of work for which a permit is applied unless expressly required by other sections of 780 CMR 51.00 through 99.00, or unless the building official determines that an unsafe or dangerous condition would result.

Exception: Existing components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, un-serviceable or demonstrate damage or significant deterioration or which otherwise present a threat to the occupants or to the public safety shall be remediated in accordance with the applicable sections of 780 CMR 51.00 through 99.00.

9304.4 Roofing, Reroofing and Flashing.

9304.4.1 General. Materials and methods used for repair, replacement or recovering an existing roof shall comply with 780 CMR 59.00 and applicable sections of 780 CMR 93.00. When the repair, replacement or recovering within any 12-month period exceeds 25% of the roof covering of the building, the entire roof covering shall comply with the requirements for new roofing.

9304.4.2 Roof Covering Installation. Roof covering installation methods, materials and flashings shall comply with 780 CMR 59.00, as applicable, and in accordance with manufacturer's written installation instructions. Where manufacturer's installation instructions differ from the requirements of 780 CMR 51.00 through 99.00, printed manufacturer's instructions shall govern warranties relative to roof covering.

9304.4.3 Recovering Versus Replacement. New roof coverings shall not be installed without first removing existing roof coverings when any of the following conditions occur:

- 1. When the existing roof or roof covering is water soaked or deteriorated to the point of being unacceptable as a base for additional roofing.
- 2. When the existing roof covering is wood shake, slate, clay or cement tile; except when the new roof covering is installed in accordance with approved industry standards.
- 3. When the existing roof has two or more layers of any type of roofing.

Exception. The removal of existing roof coverings shall not be required where complete and separate roofing systems are provided which transmit all roof loads directly to the structural system of the building and which do not bear upon the existing roof.

9304.4.4 Reinstallation of Roofing Materials. The reinstallation of existing roof covering materials which have been removed is not permitted.

9304.4.5 Flashings. Flashings shall be reconstructed in accordance with approved manufacturer's instructions and 780 CMR 51.00 through 99.00.

9304.4.6 Structural and Construction Loads. The existing roof system shall be capable of supporting all equipment loads encountered during installation as well as the loads resulting from the new roofing materials.

9304.5 Replacement Windows.

9304.5.1 Structural Requirements. Where windows are replaced which require enlargement of the existing opening, an adequately sized structural header, jack studs and other necessary framing shall be installed.

9304.5.2 Emergency Egress Windows. All emergency escape windows from sleeping rooms shall have a net clear opening of 3.3 square feet (0.307 m²). The minimum net clear opening shall be 20 inches by 24 inches (508 mm by 610 mm) in either direction except that windows in sleeping rooms of existing dwellings which do not conform to these requirements may be replaced without conforming to these dimensional requirements, provided that the windows do not significantly reduce the existing opening size.

$780~\mathrm{CMR}\colon\thinspace$ STATE BOARD OF BUILDING REGULATIONS AND STANDARDS THE MASSACHUSETTS STATE BUILDING CODE

Exception: Replacement windows utilized as emergency egress windows, other than double-hung windows, shall generally conform to the requirements of 780 CMR 5310.1.1 without conforming to the cited dimensional requirements, provided that such replacement windows do not significantly reduce the existing opening size.

9304.5.3 Safety Glazing. Safety glazing shall be used in specific hazardous locations where identified in 780 CMR 5308.4.

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS REPAIR, RENOVATION, ALTERATION, ADDITION, DEMOLITION AND CHANGE OF USE OF EXISTING ONE- AND TWO-FAMILY DWELLINGS

9304.5.4 Replacement Window Energy Conservation Performance. See 780 CMR 9307.

9304.6 Exterior Wall Coverings. Exterior wall coverings shall be installed in accordance with the provisions of 780 CMR 51.00 through 99.00 for new construction and in accordance with manufacturers printed instructions.

9304.6.1 Flashing Details. Proper flashing shall be incorporated commensurate with the exterior wall covering type.

9304.7 Latent Conditions. When latent conditions are observed and which are determined by the licensed construction supervisor, the owner or the building official to be dangerous or unsafe, or when a component or system is determined to unserviceable, said conditions shall corrected in accordance with applicable provisions of 780 CMR 51.00 through 99.00. A building permit shall be obtained or the building permit shall be amended in accordance with the provisions of 780 CMR 5110 in order to reflect the necessary required work and the approval shall be obtained from the building official prior to commencement of the corrections.

Exception: If the public safety so warrants, the corrective actions are permitted to be made amending the building permit application, providing that the building official is notified in writing within 24 hours of actions taken pursuant to this exception. This exception shall not be construed as to authorize constructive approval nor set aside requirements to amend the permit application, nor shall the authority of the building official to enforce 780 CMR 51.00 through 99.00 be abridged. Such corrective actions shall be documented by the construction supervisor or the owner and submitted to the building official within 48 hours of the completion of the action under this exception. Such corrective work shall not be concealed until the building official has inspected and approved the work.

9304.8 Smoke Heat Detection and Carbon Monoxide Alarm Systems and CO Detection and Alarm. When one or more sleeping rooms are added or created in existing dwellings, the entire existing building shall be provided with smoke detectors, heat detector and carbon monoxide detectors designed, located and installed in accordance with the provisions for new construction, 780 CMR 5313, as applicable.

If a garage is created under an existing dwelling or attached to an existing dwelling, a heat detector, conforming to the requirements of the code for new construction shall be installed in the garage; such requirement is not applicable for detached garages (see 780 CMR 5313.2).

If the dwelling undergoes complete reconstruction such that all walls and ceilings are open to framing, then the entire existing building shall be provided with smoke detectors, heat detector and carbon monoxide detectors designed, located and installed in accordance with the provisions for new construction (*see* 780 CMR 5313 inclusive and as applicable).

In an existing two-family dwelling, if one or more sleeping rooms are added or created in only one of the two dwelling units, the dwelling unit acquiring new sleeping rooms shall be provided with smoke detectors, heat detector and carbon monoxide detectors, as applicable, designed, located and installed in accordance with the provisions for new construction.

In an existing two-family dwelling, if, during a repair/reconstruction event, one or more sleeping rooms are added or created in both of the two dwelling units, the entire building shall be provided with smoke detectors, heat detector and carbon monoxide detectors, as applicable, designed, located and installed in accordance with the provisions for new construction for two-family buildings.

Note: CO detector requirements for existing R-4 uses are also governed by 527 CMR 31.00 and 248 CMR.

9304.9 Energy Conservation Requirements. Energy conservation requirements shall comply with 780 CMR 9307.

780 CMR 9305 ALTERATION OF EXISTING SPACES

9305.1 General Requirements. Alterations shall meet the requirements of 780 CMR 9304, as applicable, and the requirements of 780 CMR 9305.1. All new rooms or spaces created by remodeling existing spaces and the access and egress to and from such spaces, including emergency egress when required, shall meet the minimum requirements of 780 CMR 51.00 through 99.00 for new construction to the fullest extend practicable and shall be provided with light and ventilation in accordance with the provisions for new construction.

Exceptions: Notwithstanding contrary requirements of 780 CMR 51.00 through 99.00, the following are permitted in existing construction:

- 1. All interior door widths except bathrooms, 28 inches (711 mm) minimum
- 2. Bathroom door widths 24 inches (610 mm) minimum

- 3. Other than the two required means of egress doors, additional, nonrequired exterior doors and sliders shall be permitted at widths and heights less than required for required means of egress exterior doorways and that 5. Ceiling heights in basement or cellar spaces shall be a minimum of six feet eight inches (2032 mm) but discrete projections below ceilings in basement or cellar spaces due to structure and/or ductwork/piping shall be allowed to a minimum height of six feet six inches (1981 mm) if in the opinion of the building official such ceiling heights and projections are not unduly hazardous to the occupants.
- **9305.2 Interior Trim and Finish**. All new interior finish and trim within the work area shall comply with the requirements of 780 CMR 51.00 through 99.00 for new construction, as applicable.
- 9305.3 Structural Requirements. If the remodeling or alteration results in additional dead, environmental or live loads as prescribed by 780 CMR 93.00, the existing structural system shall be investigated and, if necessary, strengthened to safely support the additional loads, prior to any remodeling or alteration that would impose such loading. When applicable, fenestration shall conform to the wind-borne debris requirements of 780 CMR 53.00.
- **9305.4 Fire Protection Systems**. Existing fire protection systems shall be permitted to remain without change, provided such systems are in a serviceable condition. See also 780 CMR 9304.8 if applicable to the reconstruction event.

Note: Also see M.G.L. c. 148, §§ 26B, 26E, 26F and 27A and 527 CMR as applicable.

9305.5 Existing Stairways, Stairs and Landings.

Existing stairways, landings, handrails and guardrails are permitted to remain in service without modification unless such stairs, handrails or guardrails are structurally unsound or otherwise unsafe or unserviceable. If replaced, existing stairs may be reconstructed without necessarily requiring the stairway dimensions to be altered.

9305.5.1 Existing Handrails and Guardrails. If existing handrails and/or guardrails are totally replaced, such shall be replaced with handrail/guardrails complying with the code for new construction.

9305.6 Replacement Windows. See 780 CMR 9304.5.

9305.7 Energy Conservation Requirements. Energy conservation requirements shall comply with 780 CMR 9307.

- in the opinion of the building official are otherwise acceptable in width.
- 4. Ceiling heights shall be permitted to match existing ceiling heights.

9305.8 Additions to Existing Buildings.

9305.8.1 General. Vertical and horizontal additions to existing buildings shall comply with the code for new construction to the fullest extent practicable. Effects of the addition on the existing structural systems shall be evaluated and action shall be taken where necessary to ensure that structural effects in the existing building caused by the addition are properly accounted for. Additions which have the effect of creating additional dead, live or drifted or sliding snow loads on the adjacent building shall cause the adjacent building to be evaluated and strengthened where necessary.

9305.8.2 Ingress and Egress. Existing doors, corridors and stairs or other egress component systems are permitted to be used to access an addition without requiring nonconforming elements to comply with the code for new construction unless, in the opinion of the building official, said ingress and egress components are unsafe.

Exception: Ceiling heights may be constructed to match existing ceiling heights where the ceiling height in the existing portion of the building do not comply with 780 CMR 51.00 through 99.00 for new construction but in no instance less than those prescribed in 780 CMR 9305.1, Exceptions 4. and 5.

9305.8.3 Chimneys. Vertical or horizontal additions which necessitate the extension of an existing chimney shall cause the existing chimney to comply with requirements for new construction to the fullest extent practicable.

9305.8.4 Fire Protection Systems. Existing fire protection systems shall be permitted to remain without change provided that the system is serviceable condition. For additions which result in the creation of additional sleeping rooms, see 780 CMR 9304.8.

9305.8.5 Energy Conservation Requirements. Energy conservation requirements shall comply with 780 CMR 9307.

780 CMR 9306 FLOOD PLAIN CONSTRUCTION

Additions to existing buildings or alterations to existing buildings shall comply with 780 CMR 5323.

Note: The total replacement of a foundation system in a flood zone shall be deemed to be the replacement of a building system and shall cause the structure to be elevated or otherwise 9307.1 General. 780 CMR 9307 establishes the energy provisions for existing one- and two-family buildings. 780 CMR 9307 intends to capture opportunities to make incremental improvements in energy conservation to the fullest extent practical during renovations of existing buildings, their mechanical systems, or portions thereof. In general, these provisions do not require destructive work to be performed in order to capture energy conservation improvements, but instead they intend to take advantage of opportunities that are presented during the normal course of work to an existing building.

9307.2 Compliance. Portions of a building envelope; heating, air-conditioning, or service water heating system; and equipment that is being replaced or modified shall comply with the applicable requirements of 780 CMR 9307 in one of three ways.

- 1. The individual components and systems of the existing building or portions thereof that are being replaced or modified shall comply with the applicable requirements of 780 CMR 9307 as provided below; or
- 2. The individual components and systems of the existing building or portions thereof that are being replaced or modified shall comply with the applicable requirements of 780 CMR 61.00; or
- 3. Where more than one component of the existing building is being replaced, an annual energy usage analysis may be performed to demonstrate that the energy consumption of the building as modified will not exceed what the building would consume if each modified component complied with the requirements of 780CMR 9307.2.1. Such analysis must be performed by a professional registered engineer or registered architect, and documentation shall demonstrate that the analysis used is consistent with ASHRAE calculation procedures and accepted engineering practices.

9307.3 Exempt Buildings. Refer to 780 CMR 6101.3.1 for exempt buildings.

9307.4 Low-rise Residential Building Requirements.

9307.4.1 Insulation Requirements.

floodproofed to the extent required for new construction in accordance with 780 CMR 5323 to the fullest extent practicable.

780 CMR 9307 ENERGY CONSERVATION PROVISIONS

9307.4.1.1 Walls. When envelope walls are exposed during the course of work, they must be insulated by completely filling the framing cavity (behind furred or framed surfaces) with insulation of least R-3 per inch. However, insulation greater than R-19 is not required.

9307.4.1.2 Roof/Ceilings.

- 1. When enclosed ("cathedral") roof/ceiling assemblies are exposed during the course of work, either from the interior or exterior, they must be insulated to completely fill the cavity between framing members with insulation of at least R-3 per inch. Ventilation must meet the requirements of 780 CMR 5806, as applicable.
- 2. When attic spaces are insulated during the course of work, they must be insulated to at least R-30. Ventilation must meet the requirements of 780 CMR 5806, as applicable.
- **9307.4.1.3 Floor Assemblies**. When floor assemblies that are part of the envelope are insulated during the course of work, they must be insulated to at least R- 19.

9307.4.1.4 Slab Floors. When slab floors that are part of the envelope are exposed during the course of work, they must be insulated to at least R-5.

Exception: Perimeter and slab insulation are not required if destructive work, beyond the scope of the proposed alteration, is necessary to provide them.

9307.5 Moisture Control and Air Leakage.

9307.5.1 Moisture Control. When new insulation is installed under the requirements of 780 CMR 9307, vapor retarders per 780 CMR 6106.2.1 shall be provided.

9307.5.2 Fenestration and Doors. New fenestration and new exterior doors shall meet the requirements of 780 CMR 6106.3.2. Existing exterior doors, when re-used, shall be equipped with weather seals and any newly installed interior doors or scuttles separating an

unconditioned space (attics, attached garages) from conditioned space, likewise shall be equipped with weather seals and satisfy applicable requirements of 780 CMR 6106.3.2.

9307.5.3 Envelope Gaps and Cavities. All gaps and cavities between rough framing and door and window heads, jambs and sills exposed during the course of work shall be made air tight, filled with insulation and covered with a vapor retarder (also see 780 CMR 6106.2). Sealing materials spanning joints between construction materials shall allow for expansion and contraction of the construction materials. All new penetrations through the building envelope shall be made air tight.

9307.5.4 Fenestration. (Also see 780 CMR 9304.5.1)

- 2. Criteria for NFRC listing/labeling and maximum U-0.44 are not required if the existing window(s) are true divided light (i.e., single thickness multipane sashes with structural muntin bars) and being replaced with "like kind" units. This exception additionally requires that a storm window be installed over the replacement window. The storm window may be installed internally, externally or integrated with the primary window.
- 3. Criteria for NFRC listing/labeling and maximum U-0.44 are not required for basement windows with a unit height up to 24 inches (610 mm), whether or not the basement is a conditioned space.

780 CMR 9308 MOVED STRUCTURES

9308.1 General. Moved structures are permitted to be re-used at a different site, provided that all new work associated with moving the structure and making the structure habitable shall comply with the code for new construction to the fullest extent practicable.

780 CMR 9309 HISTORIC BUILDINGS

9309.1 Scope. The provisions of 780 CMR 9309.0 shall govern all buildings and structures in the Commonwealth which are legally designated as historic buildings. 780 CMR 9309.0 shall preempt all other regulations of 780 CMR governing the reconstruction, alterations, change of use and occupancy, repairs, maintenance and additions for the conformity of historic buildings and structures to 780 CMR, with the exception of 780 CMR 5110 and 5111 for permitting and 780 CMR 5122.0 for appeals, or unless otherwise specified (*see* 780 CMR 120.Y). There is no explicit State Building Code obligation for owners

9307.5.4.1 Windows, Skylights. and glass doors. When replacing existing glazed fenestration or adding new glazed fenestration to the envelope, the maximum allowable U-value shall be 0.44, and products shall be NFRC listed/labeled.

Exceptions:

1. In the repair of broken windows, broken doors or broken skylights, like-kind replacement shall be allowed, but the complete replacement windows, doors or skylights in an existing building shall require applicable compliance with the requirements of 780 CMR 9307.6.3 and 9307.6.4

of historic properties to apply for 780 CMR 9309 building classification as either totally preserved or partially preserved but other local, state or federal criteria may/will dictate at least true totally preserved, historic building classification.

Partially preserved status—see definition of same below and note that in the absence of such designation, for Building Code purposes, an existing building will not be treated as a partially preserved historic building unless so designated.

Because historic buildings may be one- or two-family homes or other uses, 780 CMR 780 CMR 9309, does, at times, default to the Sixth Edition, Massachusetts State Building Code, Chapters 1 through 33 as applicable, for uses other than one-and two-family use, otherwise one- and two-family homes that are totally preserved historic buildings or partially preserved historic buildings are addressed within 780 CMR 9309.

9309.1.1 Key Definitions. The following five definitions are found in 780 CMR 9301.1, but are also presented here as such definitions form a significant portion of 780 CMR 9309.

HISTORIC BUILDINGS:

- 1. Any building or structure individually listed on the National Register of Historic Places or
- 2. Any building or structure evaluated by the Massachusetts Historical Commission (MHC) to be a contributing building within a National Register or State Register District.
- 3. Any building or structure which has been certified by the Massachusetts Historical Commission to meet eligibility requirements for individual listing on the National Register of Historic Places. Historic building shall be further defined as totally or partially preserved buildings. All entries into the totally preserved building list shall be certified by the Massachusetts Historical Commission. The

BBRS shall ratify all buildings or structures certified by the Massachusetts Historical Commission to qualify for totally preserved listing (*see* 780 CMR 120.Y).

PARTIALLY PRESERVED BUILDINGS.

- 1. Any building or structure individually listed on the National Register of Historic Places or
- 2. Any building or structure certified as an historic building by the Massachusetts Historical Commission and not designated a totally preserved building in Appendix 780 CMR 120.Y.

RESTORATION. Restoration is the process of accurately reconstructing or repairing the forms and details of a building or structure or portion thereof as it appeared at a particular period or periods of time by means of removal of later work or the replacement of missing original work

TOTALLY PRESERVED BUILDINGS. totally preserved building is an historic building or structure. The principal use of such a building or structure must be as an exhibit of the building or the structure itself which is open to the public not less than 12 days per year, although additional uses, original and/or ancillary to the principal use shall be permitted within the same building up to maximum of 40% of the gross floor area. Totally preserved buildings shall be those listed in 780 CMR 120.Y. All entries into the totally preserved building list shall be certified by the Massachusetts Historical Commission. BBRS shall ratify all buildings or structures by the Massachusetts Historical Commission to qualify for totally preserved listing (see 780 CMR 120.Y).

9309.2 Totally Preserved Buildings.

9309.2.1 General Structural Requirements. Structural requirements for additions, and for existing buildings subject to repair, alteration and/or change of use, shall be in accordance with 780 CMR 5301 for one- and two-family dwellings (R-4 use) and otherwise, for all other uses per the Sixth Edition, Massachusetts State Building Code, 780 CMR 3400.3(10) noting Totally Preserved Historic Buildings need not comply with the wind load and seismic load requirements of the Sixth Edition, Massachusetts State Building Code, 780 CMR

9309.2.1.1 State Building Code Exceptions. A totally preserved building shall be subject to the following exceptions:

- 1. Repairs, maintenance and restoration shall be allowed without conformity to 780 CMR generally, if the provisions of 780 CMR 9309.2.2 have been met.
- 2. In case of fire or other casualty to a totally preserved building, said building may be rebuilt, in total or in part, using such techniques and materials as are necessary to restore it to its original condition and use group.
- 3. If an historic building or structure, as a result of proposed work, would become eligible for certification as a totally preserved building and the Massachusetts Historical Commission so certifies by affidavit, such affidavit is submitted to the building official with the permit application, and the building official shall then allow the work to proceed under the provisions of 780 CMR 9309.2.

9309.2.2 Mandatory Safety Requirements. All totally preserved buildings shall comply to the following requirements.

9309.2.2.1 Fire Protection Equipment. Fire protection equipment shall be provided according to the following requirements.

- 1. Manual fire-extinguishing equipment. All use groups, other than Residential R-3 and R-4, shall have approved manual fire-extinguishing equipment, as determined by the head of the local fire department.
- 2. Fire protective signaling systems (fire alarm systems). All residential buildings in Use Groups R-1, R-2 and R-3 shall conform to the applicable requirements of the *Sixth Edition, Massachusetts State Building Code* Chapter 9 (780 CMR 9), as applicable. All R-4 use groups shall

comply with 780 CMR 9309.2.2.1.2.(a) and (b).

(a) Locations. Provide smoke detectors accordance with in manufacturers listing and spacing requirements, but not less than one, for every 1,200 square feet (111 m²) of floor area per level. In addition, all lobbies, common corridors, hallways exitway access and discharge routes shall be provided with approved smoke detectors installed in accordance with the manufacturers listing and spacing require-ments but not more than 30 feet (9144 mm) spacing between detectors. All required smoke detectors shall have an alarm audible throughout structure or building.

Any rooms or spaces that are actively utilized as sleeping rooms or sleeping spaces shall likewise have smoke detectors in each sleeping room/sleeping space.

- (b) Single-station and multiple-station smoke detection devices. Smoke detectors of single-station and multiple-station types shall meet the requirements of UL 217 and be listed or approved by a nationally recognized fire-testing laboratory. All other smoke detectors shall be listed in accordance with UL 268 as listed in 780 CMR 100: *Referenced Standards*.
- 3. **Manual Pull Stations**. A manual fire alarm pull station shall be provided in the natural path of egress in all use groups except R-3 and R-4. Manual pull stations shall be connected to the building fire warning system in conformance with NFPA 72 as listed in 780 CMR 100: *Referenced Standards*.
- **9309.2.2.1.1 Supervision**. Fire protective signaling systems required by 780 CMR 9309.2.2.1 shall be supervised in accordance with the applicable requirements of NFPA 72 as referenced in 780 CMR 100: *Referenced Standards*.

Exception: Residential single and multiple station smoke detectors.

9309.2.2.2 Exit Signs and Emergency Lights. Approved exit signs and emergency lighting, where required, shall be provided in compliance with requirements of the *Sixth Edition, Massachusetts State Building Code* (780 CMR 10.00, 780 CMR 1023.0 and 780 CMR 1024.0).

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS
REPAIR, RENOVATION, ALTERATION, ADDITION, DEMOLITION AND
CHANGE OF USE OF EXISTING ONE- AND TWO-FAMILY DWELLINGS

Exception: All totally preserved buildings need not comply with 780 CMR 1023.0 and 780 CMR 1024.0 if not occupied after 9309.2.2.3 Maximum Occupancy. Occupancy shall be limited by the actual structural floor load capacity as certified by a Massachusetts-registered professional engineer or architect or in accordance with Sixth Edition, the Massachusetts State Building Code, 780 CMR 1008.0, whichever is less. Said floor load shall be posted in accordance with the procedures set forth in 780 CMR 5120.0 as well as in accordance with the posting requirements the Sixth Edition, of Massachusetts State Building Code, 780 CMR 1003.3 and 780 CMR 1617.2. The owner shall submit evidence of certification and related computations to the building official upon request.

(Also see 780 CMR 9309.2.1, relative to structural design requirements).

9309.2.2.4 Limited Egress. Where one or more floors of a totally preserved building are limited to one means of egress, the occupancy load shall be computed as follows:

- 1. Floors below the first story. Not more than one occupant per 100 square feet (9.3 m²) of gross floor area with a maximum occupancy of 49.
- 2. First story. Not more than one occupant per 50 square feet (4.6 m²) of gross floor area.
- 3. Second story and above. Not more than one occupant per 100 square feet (9.3 m²) of gross floor area, or 30 occupants per unit of egress width, whichever condition results in the lesser occupancy load.

9309.2.2.5 Inspections. The building official and the fire official shall inspect all preserved buildings totally not less frequently than once every year in order to determine that the building or structure continues to conform to 780 CMR 9309.2. qualified Massachusetts-registered professional engineer or architect shall certify every five years thereafter as to the exact floor load capacity of the building or structure. The building official shall certify all totally preserved buildings not less frequently than once every year. Fees shall be established at \$25.00 per building per inspection.

9309.2.2.6 Accessibility for Persons with Disabilities. Accessibility requirements, as

daylight hours, except that paths of egress shall have exit signs.

applicable, shall be in accordance with 521 CMR.

9309.2.2.7 Energy Conservation. Totally preserved buildings are exempt from the requirements of the *Sixth Edition*, *Massachusetts State Building Code*, Chapter 780 CMR 13 and the energy conservation requirements of the *Seventh Edition*, *Massachusetts Building Code for One- and Two-family Dwellings* (780 CMR 51.00 through 99.00).

9309.3 Partially Preserved Buildings.

9309.3.1 General Structural Requirements. Structural requirements for additions, and for existing buildings subject to repair, alteration and/or change of use, shall be in accordance with 780 CMR 5301 for one- and two-family and dwellings (R-4)use) otherwise accordance with the Sixth Edition, Massachusetts State Building Code, 780 CMR 3400.3(10), except partially preserved historic buildings need not comply with the seismic load requirements of the Sixth Edition, Massachusetts State Building Code, 780 CMR 3408.

9309.3.1.1 State Building Code Provisions. A partially preserved building shall be

A partially preserved building shall be subject to the following provisions:

- 1. Existing Systems-individual components of an existing building system may be repaired or replaced in kind without requiring that system to comply fully with the code for new construction. (See 780 CMR 93.00, 780 CMR 9304.2, New Systems)
- 2. Replacement in kind—when the repair of historic materials including patching, splicing, piecing-in, consolidating or reinforcing is not possible, compatible materials may be substituted which closely convey the form and design as well as the visual appearance of the existing feature.

9309.3.2 State Building Code Exceptions. A partially preserved building shall be subject to the following exceptions. Repairs or in kind replacement of the following features will be allowed on partially preserved buildings so as not to compromise the architectural integrity of the historical characteristics and qualities which contributed to the eligibility for listing in the National Register of Historic Places.

- 1. Roofing-repair or in kind replacement of an existing historic roof system (i.e., slate, wood, clay, tile, metal) shall be permitted without requiring structural compliance for equivalent new construction, providing that dead and live loading requirements have not changed.
- 2. Windows-repair or in kind replacement of existing historic windows (i.e., frames, sash, muntins, glazing, sills, molding, shutters) shall be permitted without requiring energy code compliance.
- 5. Masonry-repair or in kind replacement of masonry units as part of an existing system (i.e., brick, stone, terra cotta, concrete and stucco) shall be permitted.
- 6. Metals—repair or in kind replacement of existing architectural metals (i.e. cast and wrought iron, steel, tin, copper and copper alloys, aluminum, zinc) shall be permitted.
- 7. Interior features—repair or in kind replace-ment of nonstructural interior features that are important in defining the overall historic character of a building (i.e., columns, cornices, baseboards, fireplace mantels, paneling, window trim, doors, moldings, railings, flooring, plasterwork) shall be permitted.
- **9309.3.3 Applicability**. 780 CMR 9309.3 and 780 CMR 93.00, generally, shall apply to all partially preserved historic buildings.

9309.3.4 Continuation of Use and Occupancy.

The legal use and occupancy of any partially preserved building may be continued without change or further compliance to 780 CMR. The provisions of 780 CMR 93.00 generally shall be required for historic buildings accessible to the public on more than 50 days per year – this as a partially preserved historic building, by use group, could be of any use and public safety is required to be maintained for the applicable use.

9309.3.5 Inspection Certification and Fees. Partially preserved buildings shall not require annual inspection unless otherwise stipulated in 780 CMR 106 and Table 106 of the *Sixth Edition, Massachusetts State Building Code.*

9309.3.6 Fire Damage. If a building or structure is damaged from fire or other casualty it may be restored to its original construction or it shall meet the requirements of 780 CMR provided these requirements do not compromise the features for which the building was considered historic when listed in the National Register of Historic Places.

- 3. Entries/Porches—repair or in kind replacement of existing individual decorative features of an existing system (i.e. columns, balustrades, stairs, pilasters, doors, sidelights) shall be permitted.
- 4. Wood siding/Decorative elements-Repair or in kind replacement of an existing system including such items as clapboards, shingles, cornices, brackets, and window and door surrounds shall be permitted.

309.3.7 Change in Occupancy. *See* 780 CMR 93.00, generally.

9309.3.8 New Systems. See 780 CMR 93.00.

9309.3.9 Lesser and Equal Hazard. See 780 CMR 93.00. For other than one- and two-family dwellings, a partially preserved building classified in the Sixth Edition, Massachusetts State Building Code as unprotected construction Type 3C or 5B shall have waived the requirement to add one to the Hazard Index number (see Sixth Edition, Massachusetts State Building Code, 780 CMR Table 3403).

93.00 For other than one- and two-family dwellings, a partially preserved building classified in the *Sixth Edition, Massachusetts State Building Code* as unprotected construction Type 3C or 5B shall have waived the requirement to add one to the Hazard Index number (see *Sixth Edition, Massachusetts State Building Code*, 780 CMR Table 3403).

9309.3.11 Energy Conservation. Partially preserved buildings are exempt from the energy requirements of *Sixth Edition, Massachusetts State Building Code*, Chapter 780 CMR 13 and the energy requirements of 780 CMR 61.00 of the Seventh Edition, Massachusetts Building Code for One- and Two-Family Dwellings.

Exception: Additions to partially preserved buildings shall comply with the energy provisions of the *Sixth Edition*, *Massachusetts State Building Code*, Chapter 780 CMR 13 or of 780 CMR 61.00 of the *Seventh Edition*, *Massachusetts Building Code for One- and Two-family Dwellings* as applicable.

9309.3.12 Accessibility for Persons with Disabilities. Accessibility requirements shall be in accordance with 521 CMR.